Figure 1 N\_CH3 OR<sub>2</sub> R<sub>1</sub>O

1,  $R_1 = R_2 = H$ 2,  $R_1 = R_2 = COCH_3$ 

OCH3 3

5

OCH<sub>3</sub>

4

HO ÓН ÓН

6

(CH<sub>2</sub>)<sub>3</sub>CH<sub>3</sub> OH 7

HN∓ HÓ 8

12

HO.

"CH<sub>3</sub> "CH<sub>3</sub>

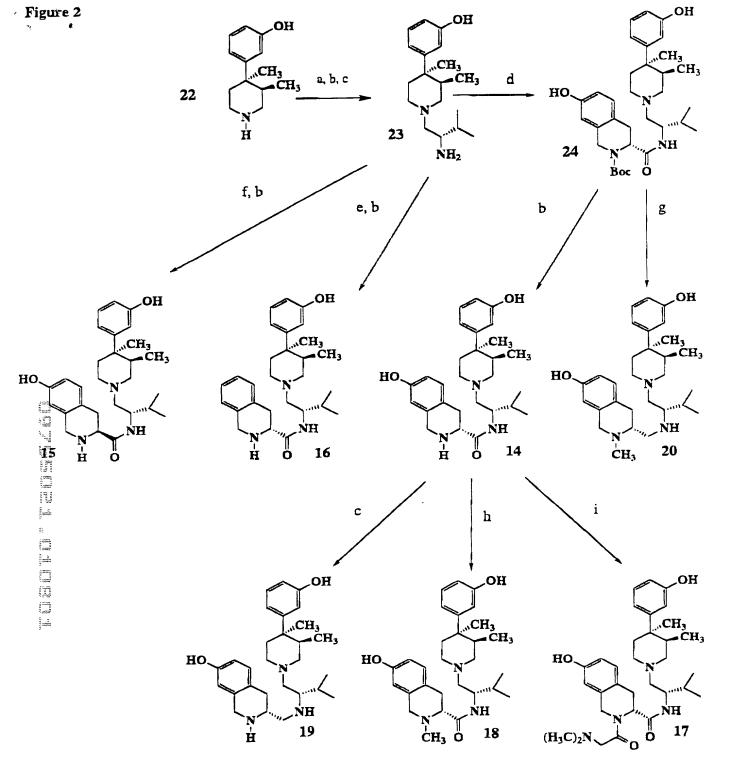
.OH

.OH "CH₃ "CH₃

9a; R = CH<sub>3</sub> 9b; R = CH<sub>2</sub>C<sub>3</sub>H<sub>5</sub>

HO. 10

.OH



Reagents: (a) Boc-L-valine, BOP, TEA, THF; (b) TFA, CH<sub>2</sub>Cl<sub>2</sub>; (c) borane/dimethyl sulfide; (d) Boc-D-7-hydroxy-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid, BOP, TEA, THF; (e) Boc-D-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid, BOP, TEA, THF; (f) Boc-L-7-hydroxy-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid, BOP, TEA, THF; (g) Lithium aluminum hydride, THF; (h) formalin, NaBH(OAc)<sub>3</sub>, dichloroethane; (i) N,N-dimethylglycine, BOP, TEA, THF

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